

ANYUKHOVSKAYA, M.P.

Colposcopy in the diagnosis of early stages of cancer of
the cervix uteri. Zdravookhraneniye 6 no.2:42-43 Mr-Apr'63.
(MIRA 16:10)

1. Iz rodil'nogo doma g. Tiraspolya (glavnyy vrach M.P.
Anykhovskaya).

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ANYUKHOVSKIY, A.S.

Cysts of the stomach. Zdravookhraneni 5 no.1:62-63 Ja-F '(2.
(MIRA 15:4)

1. Iz gorodskoy bol'nitsy g.Tiraspolya (glavnyy vrach K.F.Bukanov).
(STOMACH--TUMORS) (CYSTS)

ANYUSHKIN, Ye.S.; IVANOV, S.Z.

Dictionary of starch manufacture terms in ten languages.

Sakh. prom. 37 no.10:52-53 0 '63.

(MIRA 16:12)

ANYUSHKIN, Ye.S.; IVANOV, S.Z.

Periodicals on sugar manufacture. Sakh.prom. 38 no.1:77 Ja '64.
(PIRA 17:2)

ANYUTIN, A.I., inzh.

Design details of a rolling mill built in a mining district.
Prom. stroi. 39 no. 7:56-59 '61. (MIRA 14:7)
(Germany, West—Rolling mills)

ANXUTIN, A.I., insh.

Walls. Opyt sarub. strei. no.8:61-98 '63.

(MIRA 16:9)

ACC NR: AP6031065

SOURCE CODE: UR/0143/66/000/008/0117/0120

AUTHOR: Anyutin, A. N. (Engineer); Griga, A. D. (Engineer); Kovalevskiy, V. V. (Engineer); Yershov, V. N. (Docent)

ORG: Kharkov Aviation Institute (Khar'kovskiy aviatsionnyy institut)

TITLE: The effect of a decrease in axial velocity in a compressor stage on its efficiency

SOURCE: IVUZ. Energetika, no. 8, 1966, 117-120

TOPIC TAGS: axial compressor, compressor efficiency, compressor stage, compressor stage model, axial flow compressor, *flow velocity*

ABSTRACT: Due to the lack of data on the subject, an experimental investigation was made of the effect of a reduction of the axial velocity in the flow passage of an axial-flow compressor on its efficiency. The basic tests were performed on a K-50-1 stage model at the TsKTI. The axial-flow velocity was changed by varying the shape of the flow-passage cross section so that its ratios of inlet-to-outlet cross-section areas were $F_2/F_1 = 0.92$, in 1.00, and 1.10. The angles of the rotor-blade setting (at the middle of their heights) were $27^\circ 40'$, $32^\circ 40'$, and $37^\circ 40'$; this permitted the testing of nine versions of the model stage. The angles of the inlet and intermediate guide vanes were $15^\circ 30'$ and $32^\circ 30'$ and were not changed during the investigation. The circumferential velocity of the blade tips was $u = 200$ m/sec at a Reynolds number

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UDC: 542.78

ACC NR: AP6031065

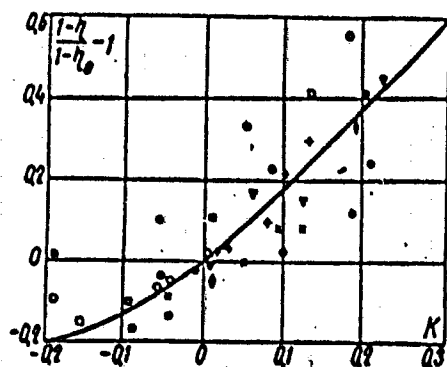


Fig. 1. The dependence of the efficiency on K . V_0 for $u = 270$ m/sec

$Re \approx 3.7 \times 10^5$. For most of the stage versions the tests were repeated at $u = 270$ m/sec. The temperatures were measured at the inlet and outlet of the stage and the static pressures, at the hub and the casing. The velocity distribution in the radial direction of the flow passage in front of and behind the rotor was also determined. For the each version of the stage the characteristics were plotted and the regime of the maximum efficiency η was determined. For this regime the diffusivity factor $\phi = (W_{max} - W_2)/W_1$ was determined; here, W_1 (W_2) are the relative velocities at the inlet (outlet) of the rotor cascade. An approximate formula for determining the efficiency of a stage of an axial-flow compressor with a rough approximation of the air compressibility is proposed: $(1-\eta)/(1-\eta_0) = 1 + K$, where η_0 is the efficiency

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ACC NR: AP6031065

of the stage when $\Delta\phi = \phi_1 - \phi_2 = 0$ and K is a parameter depending on the blade geometry and flow characteristics. The test results (with added characteristics of six other compressor stages) are plotted in a diagram in which the solid curve corresponds to the equation $(1-\eta)/(1-\eta_0) = 1 + 1.45K + 2.16K^2$ (see Fig. 1). This equation is recommended for estimating the effect of a decrease in the axial flow velocity on the efficiency of an axial compressor. Orig. art. has: 3 figures and 1 formula. [WA-76]

SUB CODE: 13,20/ SUBM DATE: 23Jul65/ ORIG REF: 003/

Cord 3/3

S/124/62/000/012/008/009
D234/D308

AUTHOR: Anyutin, A.N.

TITLE: Distribution of circulation along the turbine blade
in the presence of a radial gap

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 12, 1962, 30,
abstract 123164 (Tr. Khar'kovsk. aviats. in-ta.
1960, no. 20, 49-65)

TEXT: In the usual formulation, the author considers sec-
ondary flows in a stream of a viscous incompressible liquid flowing
around an isolated plate and a rectilinear grid of plates, enclosed
between two parallel walls with a gap between them. Approximate
expressions are obtained for the circulation distribution along the
plate height.

[Abstracter's note: Complete translation]

Card 1/1

20600

S/147/61/000/001/009/016
E194/E184

26.2/20

AUTHORS:

Yershov, V.N., and Anyutin, A.N.

TITLE:

Influence of the Radial Gap on the Boundary of Stable Operation of the Stages of an Axial Compressor

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy,
Aviatsionnaya tekhnika, 1961, No. 1, pp. 82-86

TEXT:

Investigations at the TsKTI and elsewhere have shown that increasing the radial gap in axial stages of turbo-compressors displaces the boundary of stable operation towards higher flows. It is often assumed that this is a general law but studies of instability effects cast doubt on this. The present article gives results of experimental investigations of the influence of the radial gap on the position of the boundary of stable operation of a stage of an axial compressor. The tests were made on a stage very similar in geometry to a stage K-50-1 (K-50-1) but with some difference in the shape of the symmetrical profile and with greater angles of blade installation. The blades were laminar with rounded inlet and sharpened exit edges; the curvature corresponded to within 1 to 2° of that of the mean line

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of blade K-50-1 at the various radiuses. The tests were made on a stage with a runner diameter of 480 mm with peripheral speeds of the order of 70 m/sec. The boundary of unstable operation was taken as that corresponding to the commencement of rapid increase of pulsation of static pressure in the flow with reduction in the flow and was measured by a capacitance pressure pick-up. The pick-up output was applied to a bridge: the bridge out-of-balance current was amplified and rectified and applied to a mirror galvanometer from which the mean energy of pulsation E could be read. In addition to measuring the energy of pulsation of static pressure, measurements were made of the total head over the stage and the air flow through it. The apparatus was prepared by Engineers Ye.P. Butenko and G.V. Pavlenko of the Kafedra lopastnykh i prikladnoy gazovoy dinamiki, Khar'kovskogo Aviatsionnogo Instituta (Department of Bladed Engines and Applied Gasdynamics, Khar'kov Aviation Institute). Fig.1 shows variations in the energy pulsation and in stage head as function of flow for various

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E194/E184

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radial gaps. The solid line corresponds to $\delta = 0.5 + 0.6$ mm; the dotted line to $\delta = 1 \pm 0.05$ mm; the chain dotted line to $\delta = 2 \pm 0.05$ mm; and the chain dotted line with two dots to $\delta = 4$ mm. The graph clearly shows the extension of the region of stable operation as the radial gap is increased. Fig.2 shows the change in the boundary of stable operation for different values of radial gap. The experimental results show that care must be used in assuming that the boundary of stable operation is always displaced towards greater flows when the radial gaps in the stages of an axial compressor are increased. The experimental results do not contradict the possibility that increase in the radial gap promotes formation of more intense annular vortexes at the ends of the blades, thus increasing the axial speeds and consequently reducing the angles of attack. Fig.3 shows the distribution of axial velocity beyond the runner blade of a compressor stage as function of the radial gap. The spatial motion due to flow through the radial gap promotes smooth flow over the end sections

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of the blades. Fig.4 shows the distribution of total heads over a flat compressor blade near to the gap; it clearly shows the reduction in profile losses in the presence of a radial gap. Note should be made of the appreciable reduction at the periphery of the angle of absolute velocity at output from the runner (see Fig.5), which may lead to the formation of a moving breakaway zone on the blades close to the guide vanes. This graph shows change in the direction of absolute speed at discharge from the runner of the compressor for various gaps. On the basis of further and more strict consideration it may be assumed that the radial gap influences the position of the boundary of stable operation differently depending upon the special aerodynamic features of the stage.

There are 5 figures and 4 Soviet references.

ASSOCIATION: Kafedra gazotermodinamiki i reaktivnykh dvigateley
Khar'kovskiy aviatsionnyy institut
(Department of Gas Thermodynamics and Jet Engines,
Khar'kov Aviation Institute)

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29262
S/143/61/000/009/003/006
D224/D305

26.2/20

AUTHOR: Anyutin, A. N., Engineer

TITLE: The influence of the radial gap on the behavior of a stage of an axial compressor

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 9, 1961, 55-61

TEXT: The radial gap between the peripheral faces of the blades of an axial compressor and the frame considerably distorts the distribution of the field of velocities. There is an increase in losses in the stage due to overflow and deterioration of the flow past the directing device behind the rotor. The author has derived an expression for the circulation of the flow Γ_x at any cross-section of the blade and gives analyses of the hydrodynamic motion of the flow behind the blade stage. The coordinates of the vortex on the dorsal side of the blade are determined. Derived expressions were checked by the author experimentally with a good approximation. The process of overflow at comparatively small gaps is re-

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presented as a function of volume flow of gas per unit length of the gap q_g and vortex circulation Γ_v (on the dorsal side), and also of the flow q (on concave side of the blade)

$$q_g = \delta \frac{2\Gamma_d w_m}{b \zeta}$$

With reference to Figs. 1 and 2, for small gaps the circulation is

$$\Gamma_v \simeq 4q \quad (3)$$

where q - intensity of the source. At $\frac{L}{t_1} > 2$ the circulation along the blade taking into account the radial gap -

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$$\Gamma_x = \Gamma_{ox} + \frac{2\delta}{\pi} \sqrt{\frac{2\Gamma_{\delta} w_m}{b\zeta}} \left\{ \ln \left(\operatorname{th}^2 \frac{\gamma x}{2t_1} - \frac{\gamma^2 \delta^2}{8t_1^2} \right) - \frac{\gamma t_1}{4L} + 4 \operatorname{arctg} \left[\frac{\gamma \delta}{t_1} \right]^2 \right. \\ \left. \frac{\operatorname{ch} \frac{\gamma x}{t_1}}{\operatorname{sh}^2 \frac{\gamma x}{t_1}} \right\} \quad (4)$$

The circulation at the end of the blade Γ_{δ} is given by

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$$\Gamma_{\delta} = \Gamma_{0\delta} + m - \sqrt{2\Gamma_{0\delta}m + m^2} \quad (5)$$

where

$$m = \left\{ \frac{4\delta}{\pi} \left[\ln \frac{r_{\delta}}{t_1} \frac{\pi t_1}{8L} + 0.531 \right] \right\}^2 \frac{w_m}{b\zeta} \quad (6)$$

The derivation of the flow behind the stage is found from

$$\Gamma_x = \Gamma_x OT = t_x (w_{1u} - w_{2u})_x \quad (7)$$

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Denoting the circulation at the root of the blade by Γ_L the circulation at any cross-section is

$$\Gamma_x = \Gamma_L - (\varphi_H - \varphi_B)_L + (\varphi_H - \varphi_B)_x$$

The calculation of the resulting circulation of the vortex layer on the dorsal side of the blade in the interval $x - L$ is substituted by calculation of the deviation of the flow at cross-section x compared with that at cross-section L . If in interval $x - L$ there is a vortex, then

$$\oint_{ab\bar{c}d\bar{a}} \bar{v}d\bar{z} = 0 \quad (z = x + iy)$$

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from which it is derived that

$$\int_a^b v_y dy + \int_c^d v_y dy = \int_b^c v_x dx + \int_d^a v_x dx;$$

$$(\varphi_H - \varphi_B)_x - (\varphi_H - \varphi_B)_L = (\varphi_L - \varphi_x)_B - (\varphi_L - \varphi_x)_H$$

and

$$\Delta \Gamma_{x \text{ OT}} = \Delta \Gamma_x \quad (8)$$

If the vortex is limited to the contour a, b, cda (Fig. 2), then

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$$\oint_{a_1 b_1 c d a_1} \bar{v} d\bar{z} = \Gamma_v$$

whence

$$\Delta \Gamma_{x \text{ OT}} = \Delta \Gamma_x + \Gamma_B \quad (9)$$

The coordinates of the vortex x_v are found from the equation of the moment of the quantity of motion related to the volume limited by cross-sections 1 and 2. Denoting by R_u the peripheral component of the lifting force on the blade $R_u = \rho c_{ma} \Gamma_x$, substituting for

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the values of R_u for $vR \ll r \ll R - x_v$ and for $R - x_v \ll r \ll R - \delta$, the coordinate x_v of the vortex is found from the derived expression

$$x_v - \delta = \frac{b}{16} \frac{(c_{ma})_{\delta}}{(c_{ma})_{cp}} \sqrt{c_{y05}} \sqrt{\frac{\Gamma_{\delta}}{\Gamma_{0\delta}}} \quad (13)$$

It was found experimentally that the center of the vortex at small gaps is about 0.05 b from the end of the blade. Given in the article are characteristics of the comparison of the calculated and experimental distribution of the flow circulation. The author concludes that the influence of the radial gap has to be taken into account when designing the profile of the blades, and that the suggested method gives a good approximation of the theoretical calculations to the experimental results. There are 6 figures and 6 Soviet-bloc references.

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The influence of the radial gap ...

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ASSOCIATION: Khar'kovskiy aviatsonnyy institut (Khar'kov Aviation Institute)

SUBMITTED: July 21, 1960

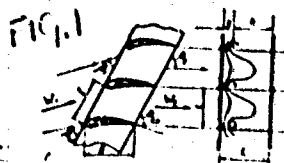


Fig. 1

Position of the plane for calculation of the flow

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ACC NR: **AP6031065**

SOURCE CODE: **UR/0143/66/000/008/0117/0120**

AUTHOR: **Anyutin, A. N. (Engineer); Griga, A. D. (Engineer); Kovalevskiy, V. V. (Engineer); Yershov, V. N. (Docent)**

ORG: **Kharkov Aviation Institute (Khar'kovskiy aviatsionnyy institut)**

TITLE: **The effect of a decrease in axial velocity in a compressor stage on its efficiency**

SOURCE: **IVUZ. Energetika, no. 8, 1966, 117-120**

TOPIC TAGS: **axial compressor, compressor efficiency, compressor stage, compressor stage model, axial, flow compressor, *flow velocity***

ABSTRACT: Due to the lack of data on the subject, an experimental investigation was made of the effect of a reduction of the axial velocity in the flow passage of an axial-flow compressor on its efficiency. The basic tests were performed on a K-50-1 stage model at the TsKTI. The axial-flow velocity was changed by varying the shape of the flow-passage cross section so that its ratios of inlet-to-outlet cross-section areas were $F_2/F_1 = 0.92$, 1.00 , and 1.10 . The angles of the rotor-blade setting (at the middle of their heights) were $27^\circ 40'$, $32^\circ 40'$, and $37^\circ 40'$; this permitted the testing of nine versions of the model stage. The angles of the inlet and intermediate guide vanes were $15^\circ 30'$ and $32^\circ 30'$ and were not changed during the investigation. The circumferential velocity of the blade tips was $u = 200$ m/sec at a Reynolds number

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UDC: **542.78**

ACC NR. AP6031065

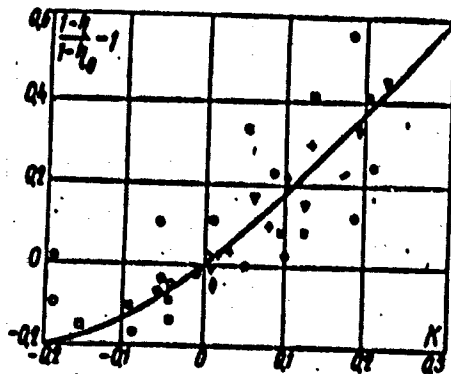


Fig. 1. The dependence of the efficiency on K . V_0 for $u = 270$ m/sec

$Re \approx 3.7 \times 10^5$. For most of the stage versions the tests were repeated at $u = 270$ m/sec. The temperatures were measured at the inlet and outlet of the stage and the static pressures, at the hub and the casing. The velocity distribution in the radial direction of the flow passage in front of and behind the rotor was also determined. For the each version of the stage the characteristics were plotted and the regime of the maximum efficiency η was determined. For this regime the diffusivity factor $\phi = (W_{max} - W_2)/W_1$ was determined; here, $W_1(W_2)$ are the relative velocities at the inlet (outlet) of the rotor cascade. An approximate formula for determining the efficiency of a stage of an axial-flow compressor with a rough approximation of the air compressibility is proposed: $(1-\eta)/(1-\eta_0) = 1 + K$, where η_0 is the efficiency

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ACC NR: AP6031065

of the stage when $\Delta\phi = \phi_1 - \phi_2 = 0$ and K is a parameter depending on the blade geometry and flow characteristics. The test results (with added characteristics of six other compressor stages) are plotted in a diagram in which the solid curve corresponds to the equation $(1-\eta)/(1-\eta_0) = 1 + 1.45K + 2.16 K^2$ (see Fig. 1). This equation is recommended for estimating the effect of a decrease in the axial flow velocity on the efficiency of an axial compressor. Orig. art. has: 3 figures and 1 formula. [WA-76]

SUB CODE: 13,20/ SUBM DATE: 23Jul65/ ORIG REF: 003/

Card 3/3

SHPARDEH, Ya.Ye., polkovnik meditsinskoy sluzhby; ANYUTIN, R.G.

Diseases of the internal ear following barotrauma. Voen.-med. zhur.
no.7:68-69 '64. (MIRA 18:5)

ANYUTIN, V.N., inzhener-polkovnik

Basic parameters of the flight of a ballistic rocket; from the
foreign press. Vest.protivozvzd.obor. no.3:25-29 Mr '61.

(Rockets (Ordnance)) (Trajectories)

(MIRA 14:7)

KHOROShAYA, Ye.S., kand. khim. nauk; KOROL'KOVA, K.D., mladshiy nauchnyy
sotrudnik; AL'TZITSER, V.S., mladshiy nauchnyy sotrudnik;
Prinimali uchastiye: YELISEYEVA, L.I.; ANYUTINA, N.S.; TUGOV,
I.I.; SHAKHNINA, L.V.

Rapid method for analyzing swollen rubber chips obtained in
the complex processing of worn-out tire treads. Nauch.-issl.
trudy VNIIPK no.14:170-177 '63. (MIRA 18:12)

ANYŽ, František

Measurement of the water content of fogs in industrial areas.
Studia geophys 8 no.4:395-404 '64.

1. Institute of Atmospheric Physics, Prague 4 - Šporilov,
Boční II.

ANY2, Frantisek

Measurement of the concentration of flying dust in the Most area and its importance in meteorology. Meteor spravy 18 no.1, 9-14 F '65.

1. Institute of Atmospheric Physics of the Czechoslovak Academy of Sciences, Prague.

Problem of illuminating glass. (Supplement) p. 32. *Prilozheniye*.
(Ministerstvo legkeho promyslu) Praha. Vol. 6, no. 4, Apr. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

ANYZEWSKI, Jan; RADZIAK, Tadeusz

Fracture of the lower humeral epiphysis in children. Postepy chir.
no.5:141-160 1958.

(HUMERUS, fract.

lower epiphysis in child, review (Pol))

ANZA, J.

Blacksmiths of their own life.

P. 2, (Padomju Latvijas Kolcholznecks. Vol. 9, no. 10, Oct. 1957, Riga, Latvia)

Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no. 2,
February 1958

Erasmus, H.

4

100-100000

2559. Asakura, A. Two flow problems in a viscous fluid, Ark.
Phys. 9, 5, 507-509, 1953.

An analytical study is presented of two-dimensional viscous flow in a channel formed by a sector and in a strip (channel formed by parallel walls). Starting with the Navier-Stokes equations, an approximate solution for the stream function is obtained by expanding in powers of the reciprocal of kinematic viscosity. Streamlines are given for the sector and the strip.

R. C. Dinger, USA

1

DE RAN

ANZHAN, O.K.; PYATETSKIY, F.Ye.

Plant protection in Podolia. Zashch.rast.ot vred.1 bol. 5
no.3:3-6 Mr '60. (MIRA 16:1)

1. Glavnyy agronom po zashchite rasteniy Khmel'nitskogo oblastnogo sel'skokhozyaystvennogo upravleniya (for Anzhan).
2. Starshiy agronom sektora sluzhby ucheta i prognozov Khmel'nitskogo oblastnogo sel'skokhozyaystvennoog upravleniya (for Pyatetskiy).

(Podolia—Plants, Protection of)

DYL'KOV, M. S.; ANZHAROVSKIY, A. T.; ZUBOV, P. I.

Effect of temperature on the long-time adhesion strength of
polyethylene. Dokl. AN SSSR 155 no. 2:389-391 Mar '64.
(MIRA 17:5)

1. Institut fizicheskoy khimii AN SSSR. Predstavleno akademikom
V. A. Karginym.

KYANDARYAN, K.A.; ANZHELOV, L.G.

Thoracoabdominal and abdominal displacements of the heart. Izv.
AN Arm. SSR. Biol. nauki 14 no.1:87-90 Ja '61. (MIRA 14:3)

1. Institut rentgenologii i onkologii AN Armyanskoy SSR i Institut
akusherstva i ginekologii Minzdroma Armyanskoy SSR.
(HEART—DISPLACEMENT)

SHAPIRO, I.B.; ULTURGASHEV, S.P.; MUZYAYEV, V.F.; ANZHIGANOV, V.S.;
KUZ'KIN, M.G., red.; SAMRINA, A.A., tekhn.red.

[Longevity; long-lived residents of Khakassia] Dolgoletie;
dolgoshiteli Khakassii. Abakan, Khakasskoe knizhnoe izd-vo,
1960. 70 p. (MIRA 14:2)
(Khakass Autonomous Province--Longevity)

ANZIMIROV, G., inzh.; VINNIK, I., inzh.

Teaching by examples. ITO 3 no.11:54-55 N '61.

(MIRA 14:10)

1. Chleny Nr. inzh.-tekhnicheskogo obshchestva Dneprodzerzhinskogo
koksokhimicheskogo zavoda.

(Dneprodzerzhinsk--Coke industry)

VINNIK, I.; ANZIMIROV, G. ekonomist

Schools of progressive practice in a communist labor plant.
Sots. trud 8 no.5:108-115 My '63. (MIRA 16:6)

1. Starshiy inzhener proizvodstvenno-tekhnicheskogo otdela
Dneprodzershinskogo keksokhimicheskogo zavoda (for Vinnik).
(Dneprodzershinsk—Coke industry—Technological
innovations)

VINNIK, I. (Dneprodzerzhinsk); ANZIMIROV, G. (Dneprodzerzhinsk)

Efficiency is the main thing. Vop. ekon. no.2:129-132
F '64. (MIRA 17:3)

ANZIMIROV, G.; VINNIK, I.

Power of an active propagation of technical information.
NTO 6 no.6:26-28 Je '64. (MIRA 17:8)

MENIOVICH, Boris Iosifovich; VINNIK, Isaak Sholomovich; ANZIMIROV,
Georgiy Gur'yevich; SKLOVSKAYA, A.A., otv. red.; KACHALKINA,
Z.I., red. izd-va; OVSEYENKO, V.G., tekhn. red.; IL'INSKAYA,
G.M., tekhn. red.

[Concentrating mill of the Dneprodzerzhinsk Coke Chemical
Plant, an enterprise of communist labor] Obogatitel'nnaia fab-
rika Dneprodzerzhinskogo koksokhimzavoda - predpriatie kom-
munisticheskogo truda. Moskva, Gosgortekhnizdat, 1963. 103 p.
(MIRA 16:7)

(Dneprodzerzhinsk—Coal preparation)

GOLOSOVSKIY, Igor' Mikhaylovich; ANZIMIROV, Georgiy L'vovich; DUBROVSKIY,
Yu.N., red.; NAZAROVA, A.S., tekhn.red.

[The star age] Zvezdnyi ohas mira. Moskva, Izd-vo "Znanie," 1961.
44 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh
i nauchnykh znaniy. Ser.10, Molodezhnaya, no.7)

(MIRA 14:6)

(Astronautics)

ANZIMIROV, Georgiy L'vovich; RODIONOV, Feliks Nikolayevich;
LANINA, L.I., red.; RAKITIN, I.T., tekhn. red.

[Good job; travel notes made on earth, in the air, and on
the ocean] Khoroshaya dolzhnost'; putevye zametki,adelannye na
zemle, v vozdukh i okeane. Moskva, Izd-vo "Znanie," 1963.
47 p. (Novoe v zhizni, nauke, tekhnike. X Seriya: Molodeshnaya,
no.7) (MIRA 16:5)

(Kamchatka--Description and travel)

ANZIN, A.K., A.IA. BRODSKII, and N.T. SHVETSKOY

Slesarno-svarochnye prispособleniia v samoletostroenii. Moskva, Oborongiz, 1949. 311 p., illus.

Bibliography: p. 310

Title tr. : Fitting and welding equipment in aircraft construction

TL671.5.A6

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

ANZIN, Anatoliy Mefod'evich; KULINICH, D.D., kapitan I rango,
red.; KOROLEV, V.I., inzh.-mayor, red.

[The atom as an engine] Atom - dvigatel'. Moskva, Voenizdat,
1964. 76 p. (MIRA 18:2)

ANZIN, A. R.; BRONIKAY, A. Ya. and SHVETSKAYA, B. I.

"Metalwork and Welding Contrivances used in Aircraft Construction," National Publishing House of the Defense Industry, Moscow, 1949.

ANZIN, Boris Nikiporovich, kand. sel'skokhozyaystvennykh nauk; KOBHIN, B.,
red.; YAKOVLEVVA, Ye., tekhn. red.

[Pruning fruit trees and berry bushes for the Central U.S.S.R.]
Obrezka plodovykh i jagodnykh kul'tur dlia srednei polosy SSSR.
Izd.2. [Moskva] Mosk. rabochii, 1956. 138 p. (MIRA 11:10)
(Pruning) (Fruit culture)

ANZIN, B.M., kand. sel'skokhoz. nauk

Biological bases of the pruning of cherry. Izv. TSKhA no.6:
43-53 '61. (MIRA 16:8)

(Cherry) (Pruning)

ACC NR: AFG035113

SOURCE CODE: UR/0365/66/032/006/0686/0691

AUTHOR: Shalyafinor, A. M.; Degtyareva, R. A.; Pimenov, A. F.; Alyshva, Ye. I.;
Yorakov, V. I.; Lifanov, V. F.; Ansin, G. N.

ORG: Moscow Institute for Steels and Alloys (Moskovskiy institut stali i splavov);
Central Research Institute for Ferrous Metals (Tsentral'nyy nauchno-issledovatel'skiy
institut chernykh metallov); Novolipetskiy Metallurgical Plant (Novolipetskiy
metallurgicheskiy zavod)

TITLE: Internal oxidation of steel with 3% silicon

SOURCE: Zashchita metallov, v. 2, no. 6, 1966, 686-691

TOPIC TAGS: metal oxidation, silicon steel, hot rolling

ABSTRACT: The article reports a study of the oxidation and decarbonization of steel with 3% silicon and 0.05% carbon in the process of hot rolling in an industrial unit, and of decarbonizing annealing (in the presence of scale) in industrial electric furnaces. Steel strips were hot rolled to a thickness of 2.5 mm. In rolling, the initial oxidation temperature was maintained at $940 \pm 10^\circ$. The total length of the discharge table was 36 meters; in the last 30 meters the strip was cooled rapidly with water and was in an atmosphere of steam. After this, the strip was coiled and the air supply was cut sharply. The average cooling rate of the strip on the table, under

Cord 1/2

UDC: 620.193.5

ACC NR: AR6036113

different rolling conditions, varied only slightly and was from 19-23 degrees/sec. The total oxidation time and the temperature of the strip before coiling were varied by changing the rolling rate. The temperatures of the strip before water cooling and before coiling were measured with an optical pyrometer and were recorded automatically. The coils were cooled in air over a period of 24 hours. Data on the values of the two abovementioned temperatures and on the time of the oxidation process are presented in a table. Based on the experimental data, a table shows the effect of hot rolling conditions on the formation of scale and on the rate of etching after annealing. In the production of steel, it is necessary to take certain measures which limit the process of internal oxidation: 1) the exit temperature of the strip should be lowered to 900° and the temperature of coiling up to 590-600°, because of the effect of the increase of the cooling rate under the influence of the blowing system; 2) the oxidation time of the metal on the discharge table should be shortened by increasing the rolling rate; 3) the heating rate and the temperature in decarbonization annealing should be increased; this leads to more favorable conditions for the oxidation of carbon, compared to the oxidation of silicon. Orig. art. has: 4 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 28Dec65/ ORIG REF: 007/ OTH REF: 004

Card 2/2

TAKIBAYEV, Zh.S.; CHASNIKOV, I.Ya.; SHAKHOVA, TS.I.; ANZON, Z.V.

Two-prong stars formed in inelastic pp-interactions at 9 Bev.

Trudy Inst. iad. fiz. AN Kazakh. SSR 6:94-100 '63.

(MIRA 16:10)

CHASNIKOV, I.Ya.; ANZON, Z.V.; TAKIBAYEV, Zh.S.; STREL'TSOV, I.S.

Identification of particles by the photographic emulsion technique.
Zhur. eksp. i teor. fiz. 45 no.2:29-37 Ag '63. (MIRA 16:9)

1. Institut yadernoy fiziki AN Kazakhskoy SSR.
(Photography, Particle track)

L 27175-65 EWT(1)/EDT(2)/T/EDT(3) DIAAP/IJP(4)
ACCESSION NR. 19501002

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101820011-7

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101820011-7"

ANZULATO, C., ing.

On the selection of the types of ships suitable to the merchant
marine of Rumania. Rev transport 9 no.1:12-20 Ja '62.

SLIVNIK, J.; BRCIC, B.; VOLAVSEK, B.; SMALC, A.; FRLEC, B.; ZEMLJIC, R.; ANZUR, A.; VEKSLI, Z.

On the synthesis of, and magnetic measurements on, xenon tetrafluoride.
Croat chem acta 34 no.3:187-188 '62.

1. "Jozsef Stefan" Institute for Nuclear Research, Ljubljana, Slovenia, Yugoslavia (for Slivnik, Brcic, Volavsek, Smalc, Frlec, Zemljic, and Ansur.) 2. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia (for Vekslj).

AOTOMI, G. ; COCLATEANU, V.

Contribution to the calculation of a dynamo with direct current, with several excitation windings. In French. p. 57.

(REVUE D'ELECTROTECHNIQUE ET D'ENERGETIQUE. ROMANIA. Vol. 1, no. 1, 1956.)

SO: Monthly List of East European Accessions (SEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

APA, L.

Malleable titanic manganous cast iron. p. 7. TEHNICA NOUA.

(Asociatia Stiintifica a Inginerilor si Tehnicienilor) Bucuresti.

Vol. 3, no. 40, Mar. 1956.

So. East European Accessions List Vol. 5, No. 9 September, 1956

APA, L.

APA, L.

APA, L. Improvements in malleable black cast iron in electric arc furnaces. p. 16.

Vol. 1, no. 2, Feb. 1956.

INDUSTRIALIA SI COMERCIALIA DE ARHETI.

TECHNOLOGY

ROMANIA

See: East European Accession, Vol. 6, no. 1, Aug. 1957

APA, L.

APA, L. The technology of melting malleable cast iron and aspects of its development in Rumania. p. 47.

Vol. 8, no. 12, Dec. 1956
METALURGIA SI CONSTRUCTIA DE MASINI.
TECHNOLOGY
RUMANIA

So; East European Accession, Vol. 6, No. 5, May 1957

ARA, I.

The influence of the chemical composition on the mechanical properties of gray pig iron.

P. 572 (STANDARTICA ROM) (Bucharest, Rumania) Vol. 2, no. 11, Nov. 1957

30: Monthly Index of East European Accessions (IEEA) 10 Vol. 2, no. 1, 1958

SI/31-00 EMP(1)/E11 131(c) JD

ACC NR: AP6021194

SOURCE CODE: RU/0017/65/000/008/0406/0410

AUTHOR: Apa, L. (Engineer)

27
8

ORG: State Planning Committee (Comitetul de Stat al Planificarii)

TITLE: Considerations regarding the specific consumption of aluminium used for the deoxidation of steel intended for castings

27

SOURCE: Metalurgia, no. 8, 1965, 406-410

TOPIC TAGS: cast steel, aluminum containing alloy

ABSTRACT: The author analyzes the effect of the aluminum added for deoxidation purposes on the amount and form of the sulphides present in cast steels, and determines the optimal suggested aluminum proportion to assure castings of outstanding quality. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 007

Card 1/188

UDC: 669.18.046.55:669.14.55

APAPAPZHIV, D

"Protecting seeded fields from insects during winter", p 78 (KOOPERATIVNO ZEMEDLIE,
Vol 6 #3, Mar. 1951, Bulgaria)

SO: Monthly List of ~~RUSSIAN~~ Accessions, East European Vol 2 #8, Library of Congress, August 1953, Uncl.

APAHIDEANU, E.

Aspects of the economic development of Hungary. Probleme econ
18 no.3:125-130 Mr '65.

USSR/Processes and Equipment for Chemical Industries - K-2
Control and Measuring Devices. Automatic Regulation.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 7003

Author : Apakhov, A.I., Balejev, A.V., Perevezentsev, I.G., Fialko
U.M.

Inst :

Title : Automatic Regulation of Preparation of Nitrogen Oxides
for Absorption in the Production of Sulfuric Acid by the
Tower Process.

Orig Pub : Khim. prom-st', 1955, No 8, 475-477

Abstract : It is pointed out that automatic regulation of prepara-
tion of nitrogen oxides for absorption can be effected
on the basis of NO_2 content of the gas after the last
absorption tower. The NO_2 content is controlled by a
photoelectric gas analyzer of continuous operation. In
so doing the NO_2 content in the gas is set at such a
concentration that only minimum losses of N_2 oxides with

Card 1/2

APAKHOV, I. A.		100 AND 110 (10010)	
LA		PAGES 1 AND 2 (10010)	
<p>Resistance of tower packings to gas flow. I. N. Kus'min and I. A. Apakhov. <i>Org. Chem. Ind. (U. S. S. R.)</i> 7, 587-59 (1960).—A review with twenty-nine references on the resistance of tower packings to gas flow. Illustrative problem is solved. R. Z. K.</p>			
<p>AD-555 METALLURGICAL LITERATURE CLASSIFICATION</p>			
FROM SYNDICATE		FROM COMPANY	
100000 010 000 000		00111 000 000 000	
10000 000 000 000		00111 000 000 000	

VERBUKH, T.D.; APAKHOV, I.A.; MAYDUROVA, O.V.; BAKINA, N.P.; ELINOVA,
N.P.; DUREA, A.A.; AVDEYEVA, I.V.

Removal of sulfur from waste gases of copper and sulfur plants
by the method of afterburning. Khim.prom. no.4:281-288 Ap '62.
(MIRA 15:5)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut i
Mednogorskiy medno-bernyy kombinat.
(Gases--Purification) (Sulfur oxides)

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 34 (USSR) SOV/37-59-1-277

AUTHORS: Apakhov, I. A., Volgin, B. P., Lyapustina, Ye. M., Andreyev, A. F.

TITLE: High-temperature Roasting of Pyrite Maintained in a Suspended [Fluidized] State (Vysokotemperaturnyy obzhig kolchedana vo vzveshennom sostoyanii)

PERIODICAL: V sb.: Vopr. polucheniya sernist. gaza iz kolchedana i sery. Leningrad, Goskhimizdat, 1957, pp 71-78

ABSTRACT: The process of roasting of a flotation concentrate may be greatly enhanced if the surface area of the concentrate is increased by maintaining it in a suspended [fluidized] state at elevated temperatures ($> 1000^{\circ}\text{C}$). The material injected into the furnace by blowing is preheated to a temperature approaching the temperature of fusion, a partial sintering of the material observed in the process being attributable to the collision of particles; the final formation of the sinter occurs on the bottom of the furnace. The sinter thus obtained contains only $\sim 0.2\%$ S and is well suited for blast-furnace smelting. Pilot-plant tests substantiated the possibility of employing this method of roasting, and, in 1953, an experimental-plant

Card 1/2

High-temperature Roasting of Pyrite Maintained in a Suspended SOV/137-59-1-277
(cont.)

furnace was designed on the basis of these tests. Pilot-plant experiments on roasting of material in a suspended state yielding a liquid end product, which was subsequently granulated, were conducted in a furnace 5.7 m high and 1.5 m in diameter; the experiments revealed the need for an additional supply of heat; this additional heat could be provided by means of combustion of fuel, preheating of air, or utilization of oxygen-enriched air, the latter alternative being the most advantageous.

A. P.

Card 2/2

APAKHOV, I.A.; KALYAZINA, V.S.; PARYLIS, E.Ya.; KLYUKINA, E.P.; POSTNIKOVA,
A.V.; Prinimali uchastiye: BASHKIROVA, Ye.M.; NAZAROVA, A.K.;
KOSTOUSOVA, A.S.

Improving the quality of contact sulfuric acid. Khim. prom.
41 no.10:745-746 O '65. (MIRA 18:11)

SAAKASHVILI, Mikhail Georgiyevich; OELASHVILI, Avtandil Petrovich;
SAKVARELIDZE, D.S., otv.red.; AKHVLEDIANI, O.S., red.; TSULU-
KIDZE, A.P., red.; MELIKISHVILI, O.A., red.; ERISTAVI, K.D., red.;
MENTESHASHVILI, I.T., red.; TATISHVILI, I.Ya., red.; BERIDZE,
V.V., red.; APAKIDZE, A.M., red.; YAKIMOVA, A., tekhn.red.

[Illustrations to the history of medicine in Georgia; from ancient
times to the 19th century] Illiustratsii k istorii meditsiny
Grusii; s drevneishikh vremen do XIX veka. Tbilisi, Gos.izd-vo
"Sabchota Sakartvelo," 1959. 127 p. (MIRA 13:9)
(GEORGIA--MEDICINE)

EXCERPTA MEDICA Sec 9 "ol 13/7 Surgery July 59

3710. TREATMENT OF TROPHIC ULCERS BY LOW TEMPERATURE (Russian text) - Apakidze V. K. - KHIRURGIYA 1958, 10 (119-124) Tables 3 Illus. 3

Cryotherapy by the application of a mixture of CO₂ snow with ether (at the temperature of -152° C.) was carried out on 38 trophic ulcers in 30 patients. Following this treatment necrotic elements rapidly disappeared from the ulcer which filled with granulations. Skin autoplasty by Yanovich-Chainsky's method could be carried out in 2-3 weeks. There was no necrosis of the grafts.

APAKIDZE, V.K.

Importance of a cytological examination of the exudate in trophic
ulcers of the shin. Sov.med. 22 no.11:126-127 N'58 (MIRA 11:11)

1. Is dorozhnoy bol'nitsy imeni N.A. Semashko Moskovsko-Kurskoy
shelesnoy doregi (glavnyy khirurg - prof. N.N. Kukin).
(LBO, ulcer
trophic, cytol. of exudate (Rus))

EXCERPTA MEDICA Sec 9 Vol 13/11 Surgery Nov 59

6379. (1432) CERTAIN MODIFICATIONS IN REVERDEN-JANOVICH-CHAINSKY
AUTOPLASTY OF TROPHIC ULCERS OF THE LEG (Russian text) - Apa-
kide V. K. - SOV. MED. 1958, 22/12 (118-120) illus. 3

Cryotherapy is applied to the ulcerated leg prior to autoplasmic skin treatment. A
gauze soaked with a gel mixture of dry ice (CO₂) and ether is held on the ulceration
from one to 5 min., depending on the extent of the lesion. A sterile bandage is
applied. When a good granulation develops on the surface of the ulceration a skin
autograft is performed, using small skin flakes 0.6 to 1 cm. in size. The author
performed 40 such operations, obtaining good results. The cryotherapeutic and
operational techniques are given in detail.

Zakrya - Lublin (IX, 19*)

APAKIDZE, V.K.

Extensive resection of the small intestine. Khirurgia 34 no.7:126-127
Jl '58 (MIRA 11:9)

1. Is dorozhnoy bol'nitsy imeni Senashko (nachal'nik I.I. Ovchinnikov).
(INTESTINE, SMALL, surgery
massive resection (Rus))

APAKIDZE, V.K.

Homotransplantation of the pulmonary valves to the ascending
portion of the aortic arch under experimental conditions.
Eksper.khir. 4 no.4:34-36 J1-Ag '59. (MIRA 12:11)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. -
deystvitel'nyy chlen AMN SSSR prof.A.A.Vishnevskiy) AMN SSSR.
(PULMONARY VALVE transpl)
(AORTA transpl)

APAKIDZE, V.K.

Report on the use of cryotherapy in neurodermatitis. Vest.
derm.i ven. 33 no.6:65-67 N-D '59. (MIRA 13:12)
(SKIN--DISEASES--PSYCHOSOMATIC ASPECTS)
(COLD--THERAPEUTIC USE)

APAKIDZE, V.K.

Diagnostic error in splenic abscess. Klin.med. 37 no.2:127 F '59.
(MIRA 12:3)

1. Is Dorozhnyy bol'nitay imeni Semashko (glavnyy khirurg - prof.
N.N. Kukin).

(SPLEEN, abscess,

differ. diag. from peritonitis (Rus))

(PERITONITIS, differ. diag.

splenic abscess (Rus))

APAKIDZE, V.K.

Effect of cryotherapy on the erysipelatous process under
experimental and clinical conditions. Klin.med. 37 no.8:
113-115 Ag '59. (MIRA 12:11)

1. Is Doroshnoy bol'nitsy in. Serashko (glavnyy khirurg - prof.
N.N.Kukin).

(ERYSIPELAS, therapy)
(COLD, therapy)

APAKIDZE, V.K. (Moskva)

Effect of cryotherapy on bone tissue structure. Klin.med. 38
no.12:125-128 D '60. (MIRA 14:2)

1. Iz Dorozhnoy bol'nitsy imeni Semashko (nach. I.I. Ovchinnikov,
glavnyy khirurg N.N. Kukin).
(COLD—THERAPEUTIC USE) (BONES)

APAKIDZE, V. K. (Moskva)

Experimental basis for creating collateral circulation for the
exclusion of the ascending aorta in plastic surgery of the
aortic valve. Eksper. khir. i anest. no.2:33-36 '62.
(MIRA 15:6)

(AORTIC VALVE—SURGERY)
(BLOOD—CIRCULATION, ARTIFICIAL)

APAKIDZE, V.K., kand. med. nauk

Indications for skin autoplasty and characteristics of the course of trophic ulcers containing *Bacillus pyocyaneus* and *Proteus vulgaris*. *Khirurgiya* 38 no.12:66-68 D '62.

(MIRA 17:6)

1. Iz Dorozhnoy bol'nitsy imeni N.A. Semashko Moskovskoy zheleznoy dorogi (nachal'nik G.M. Ugryumov, glavnyy (khirurg - prof. N.N. Kukin).

APAKIDZE, V.K.

New experimental method for the fixation of a permanent drainage of
the common bile duct. Eksper. khir. i anest. 9 no.1:36-38 Ja-F '64.
(MIRA 17:12)

1. Dorozhnaya bol'nitsa imeni Semashko (nachal'nik G.M.Ugrumov,
glavnyy khirurg - prof. N.N.Kukin) Moskovskoy zheleznoy dorogi.

APAKIN, I.S., inzhener; SHVARTSMAN, G.M., kandidat tekhnicheskikh nauk

The use of waste wood panels in furniture manufacture. Der.prom.
4 no.6:5-7 Je 55. (MIRA 8:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli
(Wood waste) (Furniture industry)

APAKIN, I.S.; ARSEN'YEV, K.K.; SOKOLOVSKIY, P.M.

Organising work on hydraulic presses in furniture factories. Der.
prem. 5 no.4:5-6 Ap '56. (MIRA 9:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Furniture industry)

APAKIN, I.S.; ARSEN'YEV, K.K.; URPIN, A.Ya.

Use of M-4 and MPS-1 resins in the manufacture of furniture.
Der.prom. 5 no.8:17-18 Ag '56. (MIRA 9:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.
(Furniture industry) (Gluing)

APAKIN, Ivan Sergeyevich, inzh.; IRIBANOV, Nikolay Nikolayevich;
OGARKOV, T.L., red.; GRIGOR'YEVA, I.S., red. izd-va; BELOGIROVA,
I.A., tekhn. red.

[Standardization of containers and packaging of food products]
Unifikatsiia tary i upakovki prodovol'stvennykh tovarov; iz opyta
leningradskoi promyshlennosti. Stenogramma lektsii. Leningrad,
1962. 18 p. (MIRA 15:12)

(Food industry--Packaging)

VERNER, Vladimir Vladimirovich, inzh.; KHOVANSKIY, Leonid
Dmitriyevich, inzh.; APAKIN, I.S., red.; FREGER, D.P.,
red.isd-va; GVIRTS, V.L., tekhn. red.

[Mechanisation of the production of wooden boxes] Mekhani-
zatsiia proizvodstva dereviannoi iashchichnoy tary; iz opyta
raboty peredovykh tarmykh predpriatii Upravleniia lesnoi
promyshlennosti i lesnogo khoziaistva Leningradskogo sov-
narkhosa. Leningrad, 1962. 35 p. (MIRA 16:7)
(Leningrad Economic Region--Container industry)

APAKIN, I.S., inzh.; VERNER, V.V.

Uniformization and standardization of boxes. Der. prom. 12 no.11,4-5
N '63. (MIRA 17:1)

1. Byvsheye Spetsial'noye proyektno-konstruktorakoye byuro Upravleniya
mabel'noy i derevoobrabatyvayushchey promyshlennosti Soveta narodnogo
khozyaystva Leningradskogo ekonomicheskogo rayona.

APAKOVA, M. S.

"Optimum Parameters of a Ventilating Current in the Removal of Dust from the Atmosphere of Under-ground Mines in the Exploitation of Gold-Ore Deposits." Sub 17 Dec 51, Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 2 May 55.

АРАКОВА, S.A. (Leningrad, nab. Fontanki, d.121, kv.47)

Association of abdominal trauma, with acute appendicitis.
Vest.khir. 81 no.10:127-128 0 '58 (MIRA 11:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki Leningradskogo
sanitarno-gigiyenicheskogo meditsinskogo instituta (sav. -prof.
P.N. Napalkov).

(ABDOMEN, wds & inj.

relation to pathogen of acute appendicitis (Rus))

(APPENDICITIS, etiol & pathogen.

abdom. trauma (Rus))

APAKOVA, S. A.

Cand Med Sci - (diss) "Sparing incisions for access to the kidney basin and to the ureter during a calculous condition." Leningrad, 1961. 16 pp; (Leningrad State Order of Lenin Inst for Advanced Training of Physicians imeni S. M. Kirov); 250 copies; price not given; (KL, 7-61 sup, 256)

APAKOVA, S.A., assistant

Condition of the abdominal wall following operations on the kidney pelvis and ureters for calculi with the use of "conservative" approaches. Trudy LGMI 59:255-273 '60. (MIRA 14:9)

1. Fakul'tetskaya khirurgicheskaya klinika Leningradskogo sanitarnogigiyenicheskogo meditsinskogo instituta (sav. klinikoy - prof. P.N. Napalkov).

(CALCULI, URINARY)

(ABDOMEN--SURGERY)

APAKOVA, S.A. (Leningrad, nab. reki Fontanki, d.121, kv.47)

Conservative dissections in surgery of calculi of the kidney
pelvis and ureters. Vest.khir. 86 no.2:18-25 '61.

(MIRA 14:2)

1. Is fakul'tetskoy khirurgicheskoy kliniki (sav. - prof.
P.N. Kapalkov) Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta.

(CALCULI, URINARY)

APAKOVA, S.A.

Clinical evaluation of splenoportography. Trudy ISOMI 74:
61-70 '62. (MIRA 17:10)